none none none

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TI - CLEANING APPARATUS FOR TRANSPARENT INSULATOR

IN - KANAZAWA HIDEHIRO; HIROO RIYUUJI; ANDO KENJI; OTANI MINORU; SUZUKI YASUYUKI

PA - CANON KK

IC - H01L21/304; G01N21/59

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- Glass substrate cleaning apparatus detects time change of transmittance of substrate cleaned using supplied oxygen and/or ozone containing gas

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PA - (CANO) CANON KK

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JP2000114208 NOVELTY - An ozonizer (13) supplied activated oxygen and/or ozone containing gas. A
detector (10) detects the time change of transmittance of glass substrate (1) cleaned using the
supplied gas.

- USE For removing organic substances adhered onto the glass substrate used in optical components.
- ADVANTAGE The degree of cleaning can be measured accurately even though the cleaning object is
 insulating material, thus glass substrate can be cleaned satisfactorily. Suppresses generation of
 products due to the reaction of supplied oxygen and/or ozone with the glass substrate, reliably.
- DESCRIPTION OF DRAWING(S) The figure shows schematic diagram of glass substrate cleaning apparatus.
- Glass substrate 1
- Detector 10
- Ozonizer13
- (Dwg. 1/3)

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IN - HIROO RIYUUJI; ANDO KENJI; OTANI MINORU; SUZUKI YASUYUKI; KANAZAWA HIDEHIRO

PA - CANON INC

TI - CLEANING APPARATUS FOR TRANSPARENT INSULATOR

PROBLEM TO BE SOLVED: To obtain a cleaning apparatus in which a cleaning degree can be measured, even when an object to be cleaned is a transparent insulator by detecting the change in terms of time in the optical characteristic of the transparent insulator which is cleaned with a gas.

- SOLUTION: A transmittanc is changed sharply by the amount of a surface stuck substance in a wavelength region in which the wavelength is short at 300 nm or smaller. Then, a cleaning apparatus

none none none

which d tects the quantity of light transmitted through a transparent insulator is used. Accordingly, the cleaning degree of the stuck substance is measured satisfactorily. Light which is emitted from a light source 4 is transmitted by a fiber 5. The light is projected towards a glass substrate 1 from the tip part 7 of a projection fiber, which can b driven right and left by a motor 6 so as to be capable of corresponding to the glass substrate 1 having an arbitrary thickness. Then, the light which is transmitted through the glass substrate 1 is incident on the tip part 8 of a light-receiving fiber, and it is transmitted by a fiber 9, a quantity of light is detected by a detector 10. A CPU 11 senses a change in the quantity of light, and it outputs a command for opening and closing a valve 12. Activated oxygen or the like, which is generated by an ozone generator 13, is supplied via the valve 12.

- H01L21/304 ;G01N21/59

none none none